

REMARKS

The present application was filed on September 15, 1999 with claims 1-6. Claims 7-11 were added in subsequent Amendments. In the outstanding Office Action dated June 6, 2005, the Examiner has: (i) rejected claims 2, 4, 5 and 8 under 35 U.S.C. §101 as being directed to non-statutory subject matter; (ii) rejected claims 1-11 under 35 U.S.C. §112, second paragraph, as being indefinite; and (ii) rejected claims 1-11 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,314,434 to Shigemi et al. (hereinafter "Shigemi"), in view of U.S. Patent No. 5,870,545 to Davis et al. (hereinafter "Davis"), and further in view of U.S. Patent No. 6,601,035 to Panagos et al. (hereinafter "Panagos").

In this response, claim 6 has been canceled without prejudice, and therefore the rejection of this claim is rendered moot. Additionally, claims 1, 4, 5, 7, 8 and 11 have been amended. Claims 1-5 and 7-11 are pending in the present application. Applicants traverse the §101 and §103 rejections for at least the reasons set forth below. Applicants respectfully request reconsideration of the present application in view of the above amendments and the following remarks.

Claims 2, 4, 5 and 8 stand rejected under §101 as being directed to non-statutory subject matter. Specifically, the Examiner contends that these claims involve "method steps which can be practiced mentally in conjunction with pen and paper," and that "it is uncertain what performs each of the claimed method steps" (present Office Action; page 2, paragraph 3). Applicants respectfully disagree with this contention. The inventions recited in claims 2, 4, 5 and 8 do not involve steps that can be practiced mentally in conjunction with pen and paper. Rather, each of the subject claims, as clearly stated therein, is directed to either a computer system, a data processing system, a process steps implemented on a computer system or data processing system, or an article of manufacture. As such, it clear from the language set forth in the subject claims what tangible entity performs each of the claimed process steps, and that such process steps cannot be performed mentally by pen and paper. The language recited in the subject claims is consistent with other computerized methods, systems and/or articles of manufacture recognized as falling within the scope of patentable subject matter under §101. Accordingly, withdrawal of the §101 rejection of claims 2, 4, 5 and 8 is respectfully solicited.

Claims 1-11 stand rejected under §112 as being indefinite "for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention" (present Office

Action; page 2, paragraph 4). The Examiner contends that the terms “standard behavior,” “deviation from the standard behavior,” and “posted” recited in the subject claims are not explicitly clear. While Applicants do not believe that such terms necessarily render the claims indefinite to one skilled in the art, particularly in the context of the respective claims themselves, claims 1, 4, 5, 7 and 8 have been amended for clarity in a manner which is believed to address the §112 rejection. Specifically, the terms “standard behavior” and “deviation from the standard behavior” have been replaced by “first mode” and “second mode,” respectively. Furthermore, the term “posted” has been replaced by the analogous term “determined,” as employed in the context of the subject claims. Accordingly, withdrawal of the §112 rejection of claims 1-5 and 7-11 is respectfully requested.

Claims 1-5 and 7-11 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Shigemi, in view of Davis, and further in view of Panagos. With regard to independent claim 1, as well as claims 4, 5, 7, 8 and 11 which are of similar scope, the Examiner acknowledges that Shigemi fails to teach a timed-evaluation step which continues processing to start a target-activity even if not all truth-values of the incoming control-connectors have been posted yet (present Office Action; page 5, paragraph 7). However, the Examiner contends that Davis teaches such feature (present Office Action; paragraph 8). The Examiner also acknowledges that Shigemi fails to disclose “using Boolean values as truth-values” (present Office Action; page 5, paragraph 9). The Examiner acknowledges that the combination of Shigemi and Davis fails to teach “evaluating, if at least a first one of said incoming control-connectors is associated with a time-interval defining a maximum period of time . . . after which the target-activity is to be started, and evaluating if said time-interval has expired” (present Office Action; page 5, paragraph 10). However, the Examiner contends that Panagos teaches such features. Applicants respectfully disagree with these contentions.

Applicants respectfully assert that the recited combination of Shigemi, Davis and Panagos fails to teach or suggest all of the elements set forth in the subject claims, as is necessary to establish a *prima facie* case of obviousness under 35 U.S.C. §103(a). As stated above, and as acknowledged by the Examiner, Shigemi fails to disclose at least a timed-evaluation step which continues the processing to start a given target-activity even if not all truth-values of the incoming control-connectors have been determined yet, as required by claim 1. Applicants assert that Davis

also fails to disclose at least this feature of the claimed invention, and thus fails to supplement the deficiencies of Shigemi.

The Examiner contends that Davis discloses “concurrent processing of activities” at column 14, lines 2-8, which the Examiner analogizes to a timed-evaluation step which continues processing to start a target-activity even if not all truth-values of the incoming control-connectors have been determined yet. While Davis does teach a set of rule nodes that can “provide controlled process concurrency” (Davis; col. 14, lines 6-7; emphasis added), each rule node must still evaluate all of its incoming control connectors before a subsequent process can be started. Davis states that “[t]he OpenPM engine 20 evaluates the rules 95a associated with each rule node 151 and performs the associated action for each rule node whose condition is satisfied” (Davis; col. 13, line 66, to col. 14, line 2; emphasis added). In contrast to Davis, the timed-evaluation step recited in claim 1 explicitly enables a given target activity to be started without necessarily evaluating the truth value of all incoming control connectors. Davis provides no mechanism whatsoever for starting a given target activity without evaluating the truth value of all incoming control connectors, and thus is not analogous to the timed-evaluation step of the claimed invention. Furthermore, Panagos fails to supplement the deficiencies of Shigemi and Davis, and thus the combination fails to teach or suggest the invention set forth in the subject claims.

As stated above, and as acknowledged by the Examiner, the combination of Shigemi and Davis fails to teach “evaluating, if at least a first one of said incoming control-connectors is associated with a time-interval defining a maximum period of time . . . after which the target-activity is to be started, and evaluating if said time-interval has expired,” as required by the subject claims. The Examiner contends that “Panagos teaches a time interval start time and completion or deadline time of a workflow activity to be executed,” and that a time interval inherently consists of a minimum period of time and a maximum period of time (present Office Action; page 5, paragraph 10). Applicants submit, however, that while Panagos may disclose dynamically assigning a deadline of an activity from the dynamic calculation of a predicted completion time relating to that activity (Panagos; col. 2, lines 43-45), Panagos fails to teach or suggest a mechanism for performing a timed-evaluation step which is analogous to that recited in the subject claims.

Notwithstanding the above traversal, however, Applicants assert that the Examiner's §103 rejection is rendered moot in view of the above amendments to the claims. Specifically, claims 1, 4, 5, 7, 8 and 11 have been amended to further specify the method, system, or article of manufacture as being operative in one of at least a first mode and a second mode, wherein in the first mode, a truth value of all incoming control-connectors are evaluated, and in the second mode, the timed-evaluation process is initiated for continuing processing to start a target activity even when all incoming control connector have not been evaluated. The first mode represents a standard processing methodology, wherein the respective truth values of all incoming control connectors are evaluated. The methodology automatically switches to the second mode, wherein the target activity is started without evaluating the truth value of all incoming control connectors, in response to the first incoming control connector which is determined to be true. In essence, the processing methodology of the claimed invention requires overwriting an existing rule (first mode) and replacing it with another rule (second mode) which initiates the target activity without evaluating the truth value of all incoming control connectors (present Specification; page 20, lines 10-16). The prior art of record, when considered either individually or in combination, fails to teach or suggest operation at least this feature of the claimed invention.

Each of the claims 1, 4, 5, 7 and 8 further requires that the timed-evaluation procedure be repeated until all control connectors of the target activity have been evaluated. In this manner, the target activity may be performed multiple times, taking into account the truth values of the control connectors that were not yet evaluated at the time the target activity was previously performed. This feature is disclosed, for example, on page 20, lines 22-24, lines 31-33, and page 21, lines 1-4 of the present specification. The prior art of record, when considered either individually or in combination, fails to teach or suggest at least this additional feature of amended claims 1, 4, 5, 7 and 8.

For at least the reasons given above, Applicants submit that independent claims 1, 4, 5, 7, 8 and 11, as amended, are believed to be patentable over the prior art of record. Accordingly, favorable reconsideration and allowance of these claims are respectfully solicited.

With regard to claims 2 and 3, which depend from claim 1, and claims 9 and 10, which depend from claim 8, Applicants assert that these claims are also patentable over the prior art of record by virtue of their dependency from their respective base claims, which are believed to be

Application Serial No. 09/396,245

patentable for at least the reasons given above. Furthermore, one or more of these claims define additional patentable subject matter in their own right. Accordingly, favorable reconsideration and allowance of claims 2, 3, 9 and 10 are respectfully requested.

In view of the foregoing, Applicants believe that pending claims 1-5 and 7-11 are in condition for allowance, and respectfully request withdrawal of the § 101, § 112 and § 103 rejections.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Wayne L. Ellenbogen", with a stylized flourish at the end.

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